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The Role of Trauma in Health Disparities for Cancer-Related Health: A Call to Action

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ABSTRACT

Cancer is the second leading cause of death in the United States. In this brief report, we describe the current literature on interpersonal trauma (i.e., sexual abuse and intimate partner violence) and cancer. Concordant with the general population, between 20% and 50% of cancer patients have experienced interpersonal trauma. Experiences with interpersonal trauma not only appear to increase risk for developing cancer, but may also act as a roadblock to accessing appropriate preventive testing and to receiving adequate support during cancer care. Healthcare providers can play an important role in making cancer-related care more trauma-informed.

Keywords: cancer, health disparities, trauma-informed care

INTRODUCTION

Cancer is the second leading cause of death in the United States (US). At any given moment, there are more than 12.5 million people living with cancer, and an additional ~1.6 million new cases are diagnosed each year. Cancer incidence, advanced stage at diagnosis and premature death are all substantially elevated among people who belong to ethnic and/or racial minority populations. In addition, impoverished patients and patients of color often bear a disproportionate burden of traumatic exposures, such that there may be a compounding effect that leads to greater disparities.

The recently published “*Annual Report to the Nation on the Status of Cancer*” (Edwards et al., 2014) detailed trends in cancer morbidity and mortality. The report also delved into the interrelationship between key components of patients’ histories and cancer outcomes, specifically highlighting the impact of a comprehensive list of co-morbid diagnoses (e.g., congestive heart disease; renal failure) on overall survival at the time of first cancer diagnosis (Edwards et al., 2014). Interestingly, the report did not mention the potential impact of interpersonal trauma, another key component of patients’ histories, on cancer-related health and health service use.

METHODS

In this brief report, we describe the current literature on interpersonal trauma, (i.e., sexual abuse and intimate partner violence (IPV)), and cancer; specifically, we searched databases including PubMed and PsycInfo to find relevant articles, and then synthesized the information into the current summary. Of note, we did not conduct a systematic review; however, we hope that our summary is hypothesis-generating. We propose that inequities in cancer-related morbidity and mortality will be substantially mitigated when greater attention is paid to this association, and when health care providers focus on providing trauma-informed care to their patients.

RESULTS

Recent studies have established that interpersonal trauma increases risk for a variety of adverse health outcomes, like depression and chronic obstructive pulmonary disease. Patients with histories of trauma also incur significant health care costs. A small but growing number of studies are now suggesting similar associations between trauma and cancer-related health service use and outcomes. Concordant with the general population, between 20% and 50% of cancer patients have experienced interpersonal trauma; rates of trauma may be particularly high for impoverished patients or patients of color (Coker et al., 2012). Experiences with interpersonal trauma not only appear to increase risk for developing cancer, but may also act as a roadblock to accessing appropriate preventive testing and to receiving adequate support during cancer care.

Prior Trauma Affects Cancer Screening

In 2010, 66% of women over age 40 reported that they had had a mammogram within the past two years, while 74% of women age 18 or older had a Pap test within the past three years (National Cancer Institute, 2014). However, cancer screening rates for those with a history of trauma are substantially lower (Farley, Golding, & Minkoff, 2002; Gandhi et al., 2010). A case-control study conducted by Farley et al. (2002) found that women who had been sexually abused as children were 44% less likely to have a Pap screening compared to women who had not experienced child sexual abuse history (adjusted odds ratio (aOR)=0.56 95% CI 0.34 to 0.91); this study is consistent with a burgeoning literature about the association between sexual abuse and significant distress during pelvic exams. Furthermore, in a study of 382 women in urban health clinics, women ages 40-74 years old with a self-reported history of sexual and/or physical abuse had an 87% decreased odds of having had a Pap smear within the past three years (aOR=0.13 95% CI, 0.02– 0.86) and an 84% decreased odds of having had a mammogram in the past year (aOR=0.16 95% CI, 0.03– 0.99) compared with victims of emotional abuse only (Gandhi et al., 2010). Although the underlying mechanisms have not been completely elucidated, there are likely many reasons why traumatized women are screened for cancer less frequently than women without such histories. One possibility is that traumatized women may be concerned that being screened will remind them of being assaulted (i.e., a flashback), or that they may have adopted avoidant coping strategies which influence their health related decision-making.

Trauma and Elevated Risk for Cancer

Multiple cross-sectional studies have found that self-reported trauma history is associated with incident cancer (Coker, Hopenhayn, DeSimone, Bush, & Crofford, 2009; Brown et al., 2010). For example, after adjusting for risk factors like smoking and illegal drug use, Coker et al. (2009) studied trauma and cancer in a sample of 4,732 women and found that there were robust relationships between cervical cancer and intimate partner violence (aOR= 2.7, 95% CI 1.8-4.0), forced sex as an adult (aOR=2.6, 95% CI 1.6-4.3), and child sexual abuse (aOR=2.4

95% CI 1.4-4.0). Given the relationship between human papilloma virus (HPV) and cervical cancer, it is possible that the association between abuse and cervical cancer is mediated by HPV transmission. Similarly, in a study of 16,901 men and women, Brown et al. (2010) found a graded relationship between patients' self-reported number of adverse childhood experiences (*e.g.*, being personally emotionally, physically or sexually abused or having an abused mother) and incident lung cancer, such that as the number of traumatic childhood experiences increased, so did risk of lung cancer diagnosis. Adults with the highest number of traumatic childhood experiences (6 or more) had 2.70 (95% C.I. 0.94-7.72) times the risk of developing lung cancer compared to those who reported no adverse childhood experiences at all (Brown et al., 2010). History of smoking attenuated the risks in the adjusted model, suggesting that smoking may be partially responsible for the relationship between interpersonal trauma and lung cancer. In other words, prior trauma increases risk behaviors such as smoking, and in turn, smoking increases risk for lung cancer.

Increased Emotional Distress and Diminished Social Support in Cancer Patients with Trauma Histories

Compared to cancer patients who have not experienced interpersonal trauma, cancer patients who have had such a history are more likely to experience emotional distress, including post-traumatic stress disorder (PTSD) and depressive symptoms. For example, studying 533 female cancer patients, Coker et al. (2012) documented that cancer patients who had experienced IPV had significantly more emotional distress ($p < 0.05$) than cancer patients who had not been in violent relationships.

In addition, patients who have experienced trauma before their cancer diagnoses often lack adequate social support (Coker et al., 2012). Several studies document that female cancer patients who were maltreated as children received less social support during care than female cancer patients who were not previously maltreated. The time around cancer diagnosis and treatment is commonly stressful, and strong social connections can provide a sense of security and can help buffer this stress. Likewise, lack of adequate social support has been significantly associated with cancer-related PTSD and depressive symptoms.

DISCUSSION

Future Directions: Research & Health Care Practice

While the literature suggests that there could potentially be a relationship between patients' traumatic experiences and their cancer-related care and outcomes, there remain sizable gaps in what is known about this topic. First, we do not understand how experience with trauma may affect cancer health service use among those with a new cancer diagnosis, and we need to learn more about whether prior trauma affects cancer morbidity and mortality. Second, because almost all of the research on trauma and cancer has been conducted with women, we know relatively little about men's experiences with trauma and cancer-related outcomes. Third, evidence suggests that trauma may have a larger impact on some forms of cancer, such as lung or cervical cancer, as opposed to others. Therefore, we need to investigate the relationship between trauma and specific cancer types. Finally, there is some indication that race/ethnicity or other demographic factors may moderate the relationship between trauma and cancer outcomes, such that analyses that stratify on these factors are needed.

CONCLUSION

Healthcare providers play an important role in making cancer-related care more trauma-informed. Effective, compassionate and culturally sensitive communication is one essential component of trauma-informed care. Motivational interviewing, in particular, is an example of an evidence-based counseling strategy that has been effectively used in the health care setting with communities of color. Routine screening for patients' trauma history is another important and concrete step. Screening has multiple potential benefits. First, knowing about prior histories of trauma can help build open communication and strengthen relationships. In addition, knowledge of a patient's trauma history may help patients and providers partner proactively discuss techniques like deep breathing or having a "safe" support person present to make cancer screenings or procedures more comfortable. Positive responses to trauma questions also provide an opportunity for healthcare providers to connect patients with local resources, such as trauma-informed mental health providers. Purposeful attention to the impact of interpersonal trauma on cancer-related care has the potential to enhance prevention, improve the quality of patients' lives during their illness, and ultimately reduce cancer morbidity and mortality (Schnur & Goldsmith, 2011).

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